

CASE REPORT

Abdominal Actinomycosis: A Case Report

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ABSTRACT

Actinomycosis is created by a gram-positive organism that does not exist uninhibitedly in nature, but rather ordinary is colonized in the parts including gastrointestinal and genital tract in female and oropharynx. It is well known for its ability to develop into aggressive masses even without fistulas. Here, we introduce a case with abdominal actinomycosis that is one of the particular clinical types of infection. *J Microbiol Infect Dis* 2020; 10(1):56-58.

Keywords: Actinomycosis, Abdominal, Gastrointestinal

INTRODUCTION

Actinomycosis is unusual, painless and chronic infection caused by the bacteria related to *Actinomyces species* [1]. It is created by a gram-positive organism that does not exist uninhibitedly in nature, but rather ordinary is colonized in the parts including gastrointestinal and genital tract in female and oropharynx [1]. Human type of disease is commonly frequent in the cervicofacial area (55%) and following thoracic (25%) [2]. The prevalence has decreased overall because of increased oral hygiene and the advancement of antibiotics [2]. Actinomyces is well known for its ability to develop into aggressive masses even without fistulas when has destroyed tissue integrity and is often underdiagnosed due to its similarity with characteristics of other infections (e.g. tuberculosis and nocardiosis) [3].

METHODS

A 52-year-old woman, HIV negative and no history of treatment with antibiotic and fungal drugs, presented with a one-year history of abdominal dull pain in Right Lower Quadrant (RLQ) which walking aggravates and lying

alleviates it. The pain intensified from 3 months ago and accompanied by nausea and vomiting from a month ago a red palpable swelling mass emerged in RLQ which also had a bloody discharge (Figure 1).

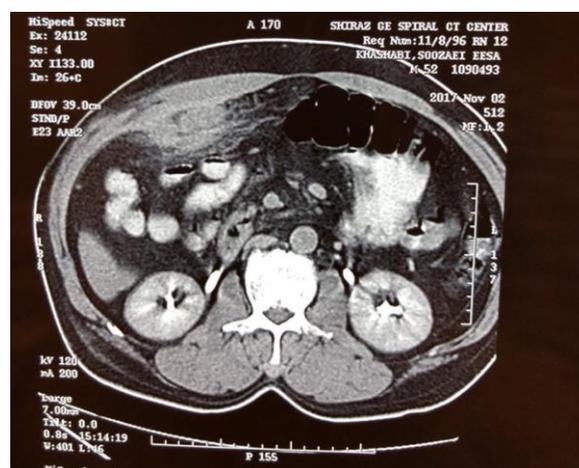


Figure 1. Computed tomography of abdominopelvic showing a 3x4 cm mass near abdominal wall.

The patient had Diabetes Mellitus from 1 year ago and had a history of appendectomy complicated with intestinal fistula about 8 years

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ago. She also had hypertension, hyperlipidemia, hemorrhoid, and a history of curettage due to thickening of endometriosis in 15 months ago. In other assessments CXR was normal. The patient vital signs were in the normal range except for hypertension (140/80 mmHg) and initial laboratory testing revealed hyperglycemia and normal leukocyte count (BS: 325 mg/dl, WBC 5100, Hb: 13.5 mg/dl, Plt: 329,000). The patient went under laparotomy due to probable fistula. During the operation an abscess which had a fistula to skin was determined. Cecumectomy was carried out and cutaneous fistula sealed. Histopathological examination of the abscess discharges showed actinomycosis sensitive to penicillin (according to disk diffusion test). As soon as the pathology report became available, intramuscular penicillin treatment was initiated followed by oral penicillin. She also received regular insulin due to her hyperglycemia and discharged with oral penicillin to complete 12 months course.

DISCUSSION

Actinomyces is usually considered a saprophyte in the gastrointestinal tract, and genital tract, including mechanical wounds, operations, intrauterine contraceptive device placement and tooth extraction can totally destroy the mucosal barrier structure, which makes it easier for the pathogen to penetrate deeper into the tissue [4]. Our case predisposing variables are the history of appendectomy and currtage, although 50 % of patients have no predisposing factor [5]. Abdominopelvic actinomycosis is one of the particular clinical types of infected sites. It is infrequent, but it results in tissue granulation, abscess and dense fibrosis, leading to a hard pelvic mass compressing ureter, the urinary bladder and rectum [6]. The main abdominopelvic actinomycosis usually imitates an intra- abdominal tumor or malignancy because of its capacity to establish a mass infiltrated while postoperative actinomycosis occurs more frequently as abscess [7]. Our patient was considered with a skin fistula with peritoneal mass, while it might be a single abscess of the liver, mimics an inflammatory bowel disease or pelvic abscess [4, 8]. Similar to our case, other cases of actinomycosis commonly do not cause signs or symptoms of

the characteristic disease and generally manifests itself as a slow- growing mass, which can be related to vomiting, nausea, altered bowel habit changes and pain [6]; causes preoperative diagnosis mistake and is found in only less than 10% of cases and histopathological examination in other cases is the most used diagnostic methods after an operation [6]. The standard medical therapy for uncomplicated cases is long- term treatment with penicillin [9] which was also helpful in our patient.

Conclusion

Late diagnosis of actinomycosis infection continues to be difficult, postponing the proper treatment and enhancing the length of infection period. It should be included and considered in the differential diagnosis in patients with abdominal masses with malignant or inflammatory characteristics due to its non-specific symptoms.

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